

[1954]

RAINFALL AT CURACAO IN MILLIMETERS

	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
1953	63.8	26.4	23.0	4.5	18.7	4.8	36.1	17.2	30.0	41.9	22.4	86.0
1952	49.7	7.3	4.3	1.9	1.2	18.7	56.5	11.4	16.6	31.3	159.7	130.4
1951	131.1	64.4	41.8	3.8	20.8	7.8	9.0	3.3	15.8	26.1	54.6	110.9
1950	104.2	38.2	18.7	47.3	44.3	208.1	14.0	65.0	3.8	109.4	252.3	50.5
1949	45.8	53.4	1.2	1.1	0.9	12.1	8.5	105.5	27.1	151.7	36.4	161.6
1948	23.9	25.6	11.7	15.9	14.7	12.7	54.4	58.5	22.2	41.2	59.7	68.4
1947	42.6	10.7	1.1	1.4	0.3	9.4	54.1	11.5	12.4	29.0	37.3	83.6

1941	43.8	10.1	1.1	1.4	0.8	3.4	24.1	11.8	13.4	33.0	21.2	32.8
1948	32.8	52.8	11.1	12.8	14.1	18.1	24.4	28.2	38.2	41.8	23.1	38.4
1949	42.8	22.4	1.8	1.1	0.8	18.1	8.2	102.2	31.1	121.1	38.4	161.8
1950	104.8	38.2	18.1	41.2	44.2	508.1	14.0	62.0	2.8	103.4	525.2	20.2
1951	131.1	84.4	41.8	2.8	50.8	1.8	3.0	2.2	12.8	36.1	24.8	110.8
1953	49.1	1.2	4.2	1.8	1.3	18.1	23.2	11.4	10.8	21.2	123.1	120.4
1955	32.8	80.4	52.0	4.2	18.1	4.8	36.1	11.8	20.0	41.8	33.4	39.0

RAILROAD AT CHICAGO IN MILLIMETERS

Date		1		2		3		4		5		6		7		8		9		10		Daily Total		sterile %
April		F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	
7		1	1	5	0	1	1	1	0	3	0	3	1	0	0	1	0	1	0	0	0	16	3	
8		1	0	4	0	2	0	0	0	3	1	0	1	1	0	2	0	0	0	4	0	16	2	
9		0	0	4	1	3	0	4	0	1	0	1	1	0	0	4	0	1	0	1	0	19	2	
10		1	1	7	0	1	1	2	0	1	0	0	0	1	0	1	0	1	0	2	0	17	2	
11		1	0	2	0	1	0	1	1	2	0	6	0	0	0	2	0	0	0	0	0	15	1	
12		0	0	2	0	0	1	2	0	0	0	3	0	2	0	0	0	1	0	0	1	10	2	
13		1	0	2	1	1	1	2	3	2	0	1	0	0	0	0	0	0	0	1	0	10	5	
7-13		5	2	26	2	9	4	12	4	12	1	14	3	4	0	10	0	4	0	8	1	103	17	14
14		1	0	3	2	2	0	1	1	2	2	4	0	3	3	1	0	2	1	0	0	19	9	
15		1	0	2	1	2	0	2	1	0	0	2	0	3	0	3	0	0	0	1	0	16	2	
16		3	1	1	1	3	1	2	0	1	0	1	3	2	0	5	0	2	1	1	1	21	8	
17		6	0	4	1	3	0	0	0	3	0	3	0	2	1	2	2	7	0	0	0	30	4	
18		1	2	4	0	5	2	4	0	2	0	2	0	0	0	1	0	3	0	3	0	25	4	
19		3	1	5	1	8	5	2	0	1	0	6	1	2	0	2	1	4	0	5	0	38	9	
20		3	2	5	2	7	0	0	0	0	2	7	0	2	0	2	2	4	2	4	0	34	10	20
14-20																						183	46	20
21		3	2	3	0	7	0	0	0	0	0	4	0	5	1	2	0	10	2	1	0	35	5	
22		3	0	1	0	9	0	2	0	0	0	2	0	2	1	0	2	2	1	0	0	22	5	
23		2	0	1	0	5	1	0	0	0	0	2	0	1	0	3	2	4	0	0	0	18	3	
24		2	0	0	0	3	2	2	0	1	0	2	0	7	0	5	0	3	0	0	0	25	2	
25		2	0	2	0	5	1	1	0	0	0	2	0	2	2	6	0	5	0	3	0	28	3	
26		2	0	0	0	4	0	1	0	3	0	5	0	3	0	8	3	2	0	0	0	28	3	
27		8	0	1	1	2	1	0	0	2	1	7	1	1	0	6	0	2	0	0	3	29	7	
21-27																						185	28	13
28		4	0	0	0	0	1	5	1	5	0	1	0	0	0	3	2	3	0	1	0	22	4	
29		6	0	1	0	2	0	6	0	2	0	5	0	0	0	7	1	2	0	0	0	31	1	
30		4	0	3	2	3	0	2	0	1	0	0	0	1	0	5	0	2	1	2	2	23	5	
May	1	5	0	0	0	2	0	5	0	4	0	3	0	1	0	4	3	1	1	0	0	25	4	
	2	2	1	1	0	6	0	4	2	0	0	3	0	0	0	1	0	2	0	3	0	22	3	
	3	1	0	3	0	5	0	2	0	1	1	2	0	0	1	0	0	1	0	2	0	17	2	
	4	5	0	3	0	5	2	0	0	0	0	1	0	2	0	3	0	3	0	0	2	22	4	
																						162	23	12

For Mr. Bushland

JUN 14 1954

Emergence

DATE Shipment	DATE EM.	r dose	% Emergence
5/4	5/6	7,500	91
5/5	5/6	7,500	88
{ 5/9	5/12	7,500	88
{ 5/9	5/12	5,000	93
{ 5/12	5/14	7,500	84
{ 5/12	5/14	5,000	85
{ 5/15	5/17	7,500	93
{ 5/15	5/17	5,000	93
{ 5/19	5/21	7,500	82
{ 5/19	5/21	5,000	79
{ 5/22	5/24	7,500	85
{ 5/22	5/24	5,000	86

Egg ing

Date shipment	Y dose	R ⁺ +N ⁺	N ⁺ +R ⁺	N ⁺ em	hatching
5/4	7,500	24 N ⁺		24	None
5/4	7,500		22 R ⁺	None	—
5/5	7,500	42 N ⁺		41	None
5/5	7,500		20 R ⁺	None	—
5/9	7,500	57 N ⁺		55	None
5/9	7,500		22 R ⁺	None	—
5/9	5,000	45 N ⁺		40	None
5/9	5,000		21 R ⁺	1 vs/em	None
5/12	7,500	(Some flies escaped through hole in cage) 5 N ⁺		5	None
5/12	7,500		54 R ⁺	None	—
5/12	5,000	24 N ⁺		24	None
5/12	5,000		25 R ⁺	5 vs/em	None
5/15	7,500	68 N ⁺		65	None
5/15	7,500		51 R ⁺	None	—
5/15	5,000	50 N ⁺		44	None
5/15	5,000		43 R ⁺	4 vs/em	26 larvae hatched
5/19	7,500	Lost		30 em	None
5/19	7,500		Lost	None	—
5/19	5,000	Lost		2	None
5/19	5,000		Lost	1 vs/em	None
5/22	7,500	53 N ⁺		49	None
5/22	7,500		6 R ⁺	None	—
5/22	5,000	23 N ⁺		20	None
5/22	5,000		6	None	—

MORTALITY

5/12 Shipment

7500 n

	3 day				6 day				10 day			
	R♂	N♂	R♀	N♀	R♂+N♂	R♀	N♀		R♂	N♂	R♀	N♀
* 100 R♂ + 100 N♀	19%			19%	51%		37%		99%*			95%*
100 N♂ + 100 R♀		53%	10%		36%	19%			74%	46%		

* A hole was discovered in the R+N cage on the 10th day
We know some flies escaped but NOT when or how many

5,000 n

	3 day				6 day				10 day			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
* 100 R♂ + 100 N♀	16%			17%	30%		27%		81%*			76%*
100 N♂ + 100 R♀		23%	27%		44%	44%			57%	75%		

* There was a hole in this cage too. Same situation

5/15

7500

	3 day				7 day				10 days			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	4%			15%	12%		22%		57%			32%
100 N♂ + 100 R♀		20%	4%		26%	21%			49%	49%		

5000 n

	3 day				7 day				10 day			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	0%			16%	23%		27%		63%			50%
100 N♂ + 100 R♀		16%	2%		29%	15%			53%	57%		

MORTALITY

5/19 Shipment

7,500 n

	2 day				4 days				7 days			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	28%			16%	41%			34%	67%			65%
100 N♂ + 100 R♀		21%	11%			31%	17%			53%	20%	

5000 n

	2 day				4 day				7 day			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	17%			12%	20%			18%	43%			36%
100 N♂ + 100 R♀		18%	10%			31%	17%			69%	20%	

2

5/22 Shipment

7,500 n

	4 day				7 day				8 days			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	31%			34%	55%			40%	75%			47%
100 N♂ + 100 R♀		→	→			—	—			92%	94%	

5,000 n

	4 day				7 day				8 day			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	39%			43%	54%			86%	97%			77%
100 N♂ + 100 R♀		56%	42%			69%	68%			87%	94%	

[Oct. 1954?]

Week Ending	: Per week : no. of : Released	: 6 Stations			5 Stations			New Pens			: Overall : Sterility : Percent	: Total : Eggs Reg. : Station
		: Lower		:Percent: :Sterile:	: Upper		:Percent: :Sterile:	:Percent: :Sterile:				
		F	S		F	S		F	S			
July 4	0	68	-63	4.2	53	-5	8.6	-	-	-	6.2	129
July 11	4,500 15,000	56	-6	9.7	63	-6	8.7	-	-	-	9.2	131
July 18	5,670 18,650	58	-1	1.7	64	-5	7.2	-	-	-	4.7	128
July 25	9,400 41,480	44	-19	30	50	-30	38	-	-	-	34.0	143
Aug. 1	8,515 52,455	38	-19	33	26	-33	56	-	-	-	45.0	116
Aug. 8	8,260 ^{1/} 25,680 ^{2/}	43	-15	26	14	-16	53	none			35.0	88
Aug. 15	83,500	9	-14	61	6	-20	77	none			69.0	49
Aug. 22	39,480	4	-25	86	13	-13	50	4	-7	64	68.0	54
Aug. 29	31,780	6	-23	80	11	-13	54	5	-18	78	70.0	53
Sept. 5	64,690	3	-11	79	7	-26	79	7	-8	53	72.0	47
" 12	77,083	5	-25	83	2	-17	89	2	-4	67	84.0	49
" 19	119,180	1	-14	93	2	-9	83	0	-5	100	90.0	26
" 26	76,580	0	-1	100	0	-9	100	0	-4	100	100.0	10
Oct. 4		0	-		0	-12	100	0	-		100.0	12

1/ 100/sq. mile

2/ 400/sq. mile commenced Aug. 7

2/ 100/sec. mile commenced Aug. 7

1/ 100/sec. mile

Week	No. of	Released	6 Stations			5 Stations			New Pairs	Overall	Total
			Lower	Upper	Percent	Lower	Upper	Percent			
July 1	0	0	68-03	1.2	53-2	0.6	-	-	-	0.8	129
July 12	12,500	12,500	50-06	2.7	63-6	0.7	-	-	-	2.2	131
July 16	18,650	18,650	58-1	1.7	64-2	7.2	-	-	-	1.7	138
July 22	14,400	14,400	14-12	30	20-30	38	-	-	-	31.0	119
Aug. 1	22,152	22,152	38-12	33	26-12	26	-	-	-	12.0	116
Aug. 8	22,602	22,602	13-12	26	11-16	23	none	none	none	32.0	88
Aug. 12	83,200	83,200	2-14	61	6-20	77	none	none	none	69.0	12
Aug. 22	39,400	39,400	1-22	60	12-12	20	1-7	61	61	68.0	24
Aug. 29	37,780	37,780	6-22	80	11-12	24	2-18	78	78	70.0	23
Sept. 6	61,680	61,680	3-11	79	7-26	79	7-8	23	23	72.0	11
" 12	27,112	27,112	2-22	82	2-17	79	0-4	67	67	84.0	99
" 19	119,120	119,120	1-14	93	2-9	83	0-2	100	100	90.0	26
" 26	76,280	76,280	0-1	100	0-9	100	0-4	100	100	100.0	10
Oct. 4	0	0	-	-	0-12	100	0	-	-	100.0	12

STERILE SCREW-WORM MALES RELEASED AND FERTILE AND STERILE EGG MASSES
COLLECTED ON THE ISLAND OF CURACAO, NETHERLANDS ANTILLES, 1954

NOV 29 1954

No.	Week Ending	Sterile Males Released		Egg Masses Collected			
		Total Number	Average Per Sq.Mi. Per Week	Fer- tile	Ster- ile	Percent Sterile	Average Masses Per Pen
1	March 23	None	---	133	0	0.0	13.3
2	March 30	13,700	81	155	0	0.0	15.5
3	April 6	12,300	72	134	4	3.0	13.8
4	April 13	34,250	201	104	17	14.0	12.1
5	April 20	9,720	57	183	46	20.1	22.9
6	April 27	8,400	49	185	28	13.1	21.3
7	May 4	34,000	200	162	23	12.4	18.5
8	May 11	8,500	50	200	39	16.3	23.9 <u>1/</u>
9	May 18	22,780	<u>2/</u> 134	250	42	14.4	26.5
10	May 23	14,180	83	177	26	12.8	28.4 <u>3/</u>
11	May 30	14,450	85	219	57	20.7	25.1
12	June 6	7,670	45	186	41	18.1	20.6
13	June 13	17,640	104	198	36	15.4	21.3
14	June 20	None	---	167	15	8.2	16.5
15	June 27	None	---	104	13	11.1	10.6
16	July 4	None	---	121	8	6.2	11.7
17	July 11	None	---	119	12	9.2	11.9

- 1/ Ten pens operated March 17 to May 11; eleven pens May 12 to July 11.
2/ Flies released on southern half of island treated at 5000 r and
on northern half at 7500 r May 12 to June 8.
3/ Five day period interpolated.

STERILE SCREW-WORM MAILS RELEASED AND FERTILE AND STERILE EGG MASSES
COLLECTED ON THE ISLAND OF CUBACAO, NETHERLANDS ANTILLES, 1934

No. Releasing	Date	Sterile Mails Released		Egg Masses Collected		Average Percent Sterile	Average Percent Fertile
		Total Number	Per Sq. M. Per Week	Per-sterile	Per-sterile		
1	March 23	None	---	183	0	0.0	12.2
2	March 30	12,700	81	188	0	0.0	12.3
3	April 6	12,300	72	184	4	2.0	12.8
4	April 13	24,200	201	104	14	14.0	12.1
5	April 20	9,750	54	183	43	20.1	22.2
6	April 27	8,400	49	182	38	13.1	21.2
7	May 4	24,000	200	182	22	12.4	18.2
8	May 11	8,800	50	200	39	18.2	22.2 1/
9	May 18	22,780 2/	134	280	42	14.4	22.2
10	May 25	14,180	32	174	20	12.2	22.2 3/
11	May 30	14,480	32	212	24	20.4	22.1
12	June 6	7,970	42	182	41	18.1	20.2
13	June 12	17,640	104	182	22	12.4	21.2
14	June 20	None	---	187	12	2.2	18.2
15	June 27	None	---	104	12	11.1	10.2
16	July 4	None	---	121	2	2.2	11.4
17	July 11	None	---	112	12	2.2	11.2

1/ Ten pairs operated March 14 to May 11; eleven pairs May 12 to July 11.
2/ Fifty released on southern half of island treated at 2500 r and
on northern half at 7500 r May 12 to June 2.
3/ Two day period intercalated.

Nov 29 1934

STERILE SCREW-WORM MALES RELEASED AND FERTILE AND STERILE EGG MASSES
COLLECTED ON THE NORTHERN HALF OF THE ISLAND OF CURACAO, N.A., 1954

NOV 29 1954

No.	Week Ending	Sterile Males Released		Egg Masses Collected			
		Total Number	Average Per Sq.Mi. Per Week	Fer- tile	Ster- ile	Percent Sterile	Average Masses Per Pen
18	July 18	33,050	389	64	5	7.2	13.8
19	July 25	41,480	488	50	30	37.5	16.0
20	August 1	52,850	622	26	33	55.9	11.8
21	August 8	25,310	298	14	16	53.3	6.0
22	August 15	41,740	491	6	20	76.9	5.2
23	August 22	12,574	148	13	13	50.0	5.2
24	August 29	14,900	175	11	13	54.1	4.8
25	September 5	32,390	381	7	26	78.6	6.6
26	September 12	38,350	451	2	17	89.5	3.8
27	September 19	59,590	701	2	9	81.8	2.2
28	September 26	38,290	450	0	9	100.0	1.8
29	October 3	51,620	607	0	0	---	---
30	October 10	41,120	484	0	0	---	---
31	October 17	61,800	727	0	0	---	---
32	October 24	49,040	577	0	0	---	---
33	October 31	68,000	400	0	0	---	---
34	November 7	68,000	400	0	1	100.0	---
35	November 14	41,210	485	0	0	---	---
36	November 21	33,380	393	0	0	---	---

STERILE SCREW-WORM MASSES RELEASED AND FERTILE AND STERILE FLY MASSES
COLLECTED ON THE NORTHERN HALF OF THE ISLAND OF CURACAO, N.A.A., 1934

No. Ending	Week	Sterile Insects Released		Fertile Insects Released		Sterile Masses Collected		Fertile Masses Collected	
		Total Number	Average For 24 Hrs. Per Week	Total Number	Average For 24 Hrs. Per Week	Fertile Masses Collected	Average For 24 Hrs. Per Week	Fertile Masses Collected	Average For 24 Hrs. Per Week
18	July 18	32,000	300	0	0	5	7.5	13.0	13.0
19	July 28	41,480	408	30	30	30	37.5	16.0	16.0
20	August 1	32,620	632	25	25	25	55.0	11.5	11.5
21	August 8	35,310	398	14	14	18	53.5	8.0	8.0
22	August 15	41,740	481	8	8	20	76.0	5.5	5.5
23	August 22	12,874	140	13	13	13	50.0	5.5	5.5
24	August 29	14,900	170	11	11	13	64.1	4.8	4.8
25	September 5	32,390	381	7	7	25	78.6	5.8	5.8
26	September 12	32,330	431	2	2	17	89.5	2.8	2.8
27	September 19	32,890	701	2	2	8	81.8	2.2	2.2
28	September 26	32,220	403	0	0	8	100.0	1.8	1.8
29	October 3	31,380	607	0	0	0	-----	-----	-----
30	October 10	41,130	404	0	0	0	-----	-----	-----
31	October 17	61,800	737	0	0	0	-----	-----	-----
32	October 24	49,040	577	0	0	0	-----	-----	-----
33	October 31	68,000	600	0	0	0	-----	-----	-----
34	November 7	68,000	600	0	0	1	100.0	-----	-----
35	November 14	61,310	488	0	0	0	-----	-----	-----
36	November 21	33,380	398	0	0	0	-----	-----	-----

107 SE part
450 NW part

9	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
9	7/26	8/2	8/9	8/16	8/23	8/30	9/6	9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22

Dec. 1954

Weekly Average Rainfall
in millimeters

Weekly Average Number of Egg Masses Per Pen



